

## PATENT CLAIMS

1. A system (500) for radio communication in the microwave range, comprising a transmitting device and a receiving device, said transmitting device comprising a transmitter (530), an antenna (510'), a filter (520') with variable filter characteristics, and a device (550') for controlling the variable filter (520'), and said receiving device comprising a receiver (540), an antenna (510), a filter (520) with variable filter characteristics, and a device (550) for controlling the variable filter (520), the system being characterized in that
- the filters (520,520') are arranged between the antenna and the transmitter, and the antenna and the receiver, respectively,
  - the filters have variable filter characteristics,
  - each of said devices (550,550') for controlling the respective filters are responsive to control signals from an external source, whereby the frequency range at which the respective device and thereby the whole system (500) operates can be controlled during operation.
2. A system (500) according to claim 1, in which the external source for control signals for the device for controlling the variable filter (520') in the transmitting device is the device (550) for controlling the variable filter (520) in the receiving device and vice versa, whereby the two control devices are in communication with each other.
3. A system (500) according to claim 1, in which the external source for control signals for the device for controlling the variable filter (520',520) in the transmitting device and in the receiving device is a central control device.
4. A system according to any of claims 1-3, in which the variable filters (520',520) in the transmitting device and in the receiving device are bandpass filters.
5. A system according to any of claims 1-3, in which the variable filters (520',520) in the transmitting device and in the receiving device are notch filters.

6. A method for use in a system (500) for radio communication in the microwave range, the system having a transmitting device and a receiving device, said transmitting device comprising a transmitter (530), an antenna (510'), a filter (520') with variable filter characteristics, and a device (550') for controlling the variable filter (520'), and said receiving device comprising a receiver (540), an antenna (510), a filter (520) with variable filter characteristics, and a device (550) for controlling the variable filter (520), the method being characterized in that
- 10 - arranging the filters (520,520') between the antenna and the transmitter, and the antenna and the receiver, respectively,
  - providing the filters with variable filter characteristics,
  - making each of said devices (550,550') for controlling the respective filters responsive to control signals from an external source,
  - 15 whereby the frequency range at which the respective device and thereby the whole system (500) operates can be controlled during operation.
7. A method according to claim 6, in which the external source whose control signals the device for controlling the variable filter (520') in the transmitting device is responsive to is the device (550) for controlling the variable filter (520) in the receiving device and vice versa, whereby the two control devices are in communication with each other.
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8. A method (500) according to claim 6, in which the external source whose control signals the device for controlling the variable filter (520',520) in the transmitting device and in the receiving device are responsive to is a central control device.
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